

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for influencing magnetic particles in a region of action, which method has the following steps:

[[a]] generation of a magnetic field having a pattern in space of its magnetic field strength such that a first sub-zone ~~(301)~~ having a low magnetic field strength and a second sub-zone ~~(302)~~ having a higher magnetic field strength are formed in the region of action, which region of action is situated outside the space surrounding means for generating the magnetic field, and

[[b]] changing the position in space of the two sub-zones in the region of action so that the magnetization of the particles changes locally,

wherein the generating step includes generating a gradient

magnetic field with a gradient coil arrangement that reverses its direction and has a passage through zero in the first sub-zone of the region of action.

2.(Currently Amended) The method of claim 1, wherein the magnetic field ~~that is~~ positionally and temporally variable ~~is generated~~ to change the position in space of the two sub-zones in the region of action.

3.(Currently Amended) The method of claim 1, having the following further steps:

[[c)] acquiring signals that depend on the magnetization in the region of action, which magnetization is influenced by the change in the position in space,

[[d)] analyzing the signals to obtain information on the spatial distribution of the magnetic particles in the region of action.

4.(Previously Presented) The method of claim 3, wherein the signals that are induced by the change in the magnetization in the

region of action are received and are analyzed to obtain information on the spatial distribution of the magnetic particles in the region of action.

5.(Previously Presented) The method of claim 1, wherein the position in space of the two sub-zones is changed for so long, and at a frequency such, that the region of action heats up.

6.(Currently Amended) An apparatus ~~for performing the method of claim 1~~ comprising:

[[a]] an arrangement having means for generating a magnetic field having a pattern in space of its magnetic field strength such that a first sub-zone ~~(301)~~ having a low magnetic field strength and a second sub-zone ~~(302)~~ having a higher magnetic field strength are formed in the region of action, which region of action is situated outside the space surrounding the means for generating the magnetic field, and

[[b]] means for changing the position in space of the two sub-zones in the region of action so that the magnetization of the particles changes locally, wherein the means for generating the

magnetic field comprise a gradient coil arrangement for generating a gradient magnetic field that reverses its direction and has a passage through zero in the first sub-zone of the region of action.

Claim 7 (Canceled)

8. (Previously Presented) The apparatus of claim 6 having at least two coils arranged concentrically one within the other, through which coils currents flow in opposite directions of circulation in the operating state.

9. (Previously Presented) The apparatus of claim 6 having at least one coil and at least one permanent magnet situated inside or outside the coil.

10. (Previously Presented) The apparatus of claim 6 having a housing enclosing the arrangement, outside which housing the region of action is situated in front of a side of the housing.

11. (Previously Presented) The apparatus of claim 6 having a

table above which the region of action is situated.

12. (Currently Amended) ~~The apparatus of claim 6 having an~~  
apparatus comprising:

an arrangement having means for generating a magnetic field  
having a pattern in space of its magnetic field strength such that  
a first sub-zone having a low magnetic field strength and a second  
sub-zone having a higher magnetic field strength are formed in the  
region of action, which region of action is situated outside the  
space surrounding the means for generating the magnetic field;

means for changing the position in space of the two sub-zones  
in the region of action so that the magnetization of the particles  
changes locally; and

means for generating at least one temporally variable magnetic  
field that is superimposed on the gradient magnetic field, for the  
purpose of displacing the two sub-zones in the region of action.

13. (Currently Amended) The apparatus of claim 6 having

[[c]] means for acquiring signals that depend on the  
magnetization in the region of action, which magnetization is

influenced by the change in the position in space,

[[d]] means for analyzing the signals to obtain information on the spatial distribution of the magnetic particles in the region of action.

14. (Previously Presented) The apparatus of claim 13 having a coil arrangement for receiving signals induced by the change in the magnetization in the region of action.